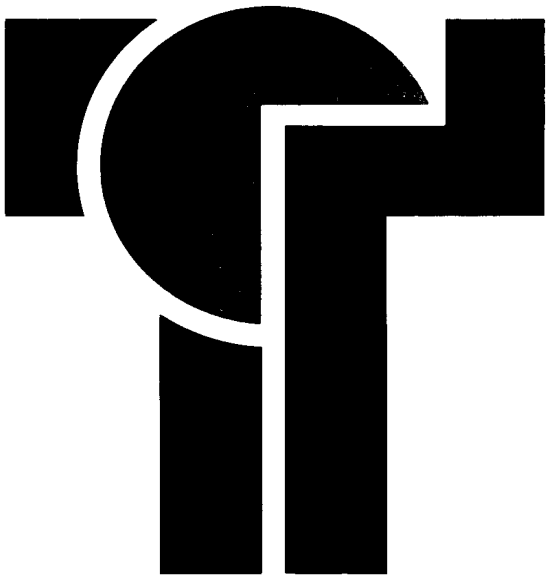
THE
CITY OF TEMPE,
ARIZONA



INDUSTRIAL USER
2003
ANNUAL REPORT

CITY OF TEMPE
ENVIRONMENTAL SERVICES SECTION
255 EAST MARIGOLD LANE
P.O. BOX 5002
TEMPE, ARIZONA 85280
(480) 350-2678

Official City Use Only

Permit #: _____ IU Code #: _____. Due Date: _____

TYPE OF PERMIT:

_____ Class I _____ Class II _____ Class III

PERMITTEE SITE INFORMATION

I. Company Profile

A. Business Name: _____

Property Owner: _____

B. Service Address: _____

_____

C. Mailing Address: _____

Contact Person: _____

Contact Title: _____

Telephone #: (___) ___ - _____ Fax #: (___) ___ - _____

E-Mail Address: _____ Pager #: (___) ___ - _____

D. Name of Facility Owner, Manager, or Corporate Officer Responsible for Facility Operations: _____

Title: _____ Telephone #.: (___) - _____

Fax #: (___) ___ - _____ Pager #: (___) ___ - _____

E-Mail Address: _____

E. Individual Responsible for Supervision of Wastewater Treatment and Disposal of All Waste Streams:_____

Title: _____ Telephone No.: (___) ____-_____

Fax #: (___) ____-_____ Pager #: (___) ____-_____

E-Mail Address: _____

F. Individual(s) Responsible for Daily Operations of Wastewater Treatment and Disposal of All Waste Streams:_____

Title: _____ Telephone No.: (___) ____-_____

Fax #: (___) ____-_____ Pager #: (___) ____-_____

E-Mail Address: _____

G. Emergency Contact:_____

Title: _____ Telephone No. (___) ____-_____

II. Plant Operational Characteristics

A. Standard Industrial Classification (S.I.C.) Codes (primary and secondary):

(1) _____ (2)_____

B. Brief Description of Process Operations at Permitted Address:

_____

_____

_____

_____

_____

_____

C. Number of Employees at Permitted Address: _____

Days of Week Facility is in Operation: _____

Total Hours Facility is in Operation Per Day: _____

Number of Shifts Used to Cover Hours of Operation: _____

Hours of Each Shift: (a)_____(b)_____ (c)_____(d)_____

Employees Per Shift: (a)_____(b)_____ (c)_____(d)_____

D. Does Your Facility Generate Hazardous Wastes?

_____ Yes _____ No

If yes, please provide the following information:

Describe Process of Disposal or Method Used to Treat Wastes That are Excluded Under 40 CFR 261.3(a)(2)(iv).

_____

_____

_____

Generator's EPA ID Number: _____

Transporter 1 Company Name: _____

Phone:_____ US EPA ID Number: _____

State Transporter's ID: _____

Transporter 2 Company Name: _____

Phone: _____ US EPA ID Number: _____

State Transporter's ID: _____

Transporter 3 Company Name: _____

Phone: _____ US EPA ID Number: _____

State Transporter's ID: _____

E.

TYPE OF WASTE GENERATED (Hazard Class) List by RCRA Code; i.e., F006, D001, etc.	VOLUME/YEAR*
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

* Specify Volume Per Year in the Appropriate Units of Measure

G = Gallons, P = Pounds, T = Tons (2,000 lbs.), L = Liters,
K = Kilograms, M = Metric Tons (1,000 kg), N = Cubic Meters

III. Water Flow

A. List All Water Account Numbers that the Permitted Facility Has With the City of Tempe.

1)_____ 2)_____ 3)_____

4)_____ 5)_____ 6)_____

If More Space is Needed, Attach Additional Sheets

B. List Daily Average Water Use in Gallons Per Day. _____Gal.

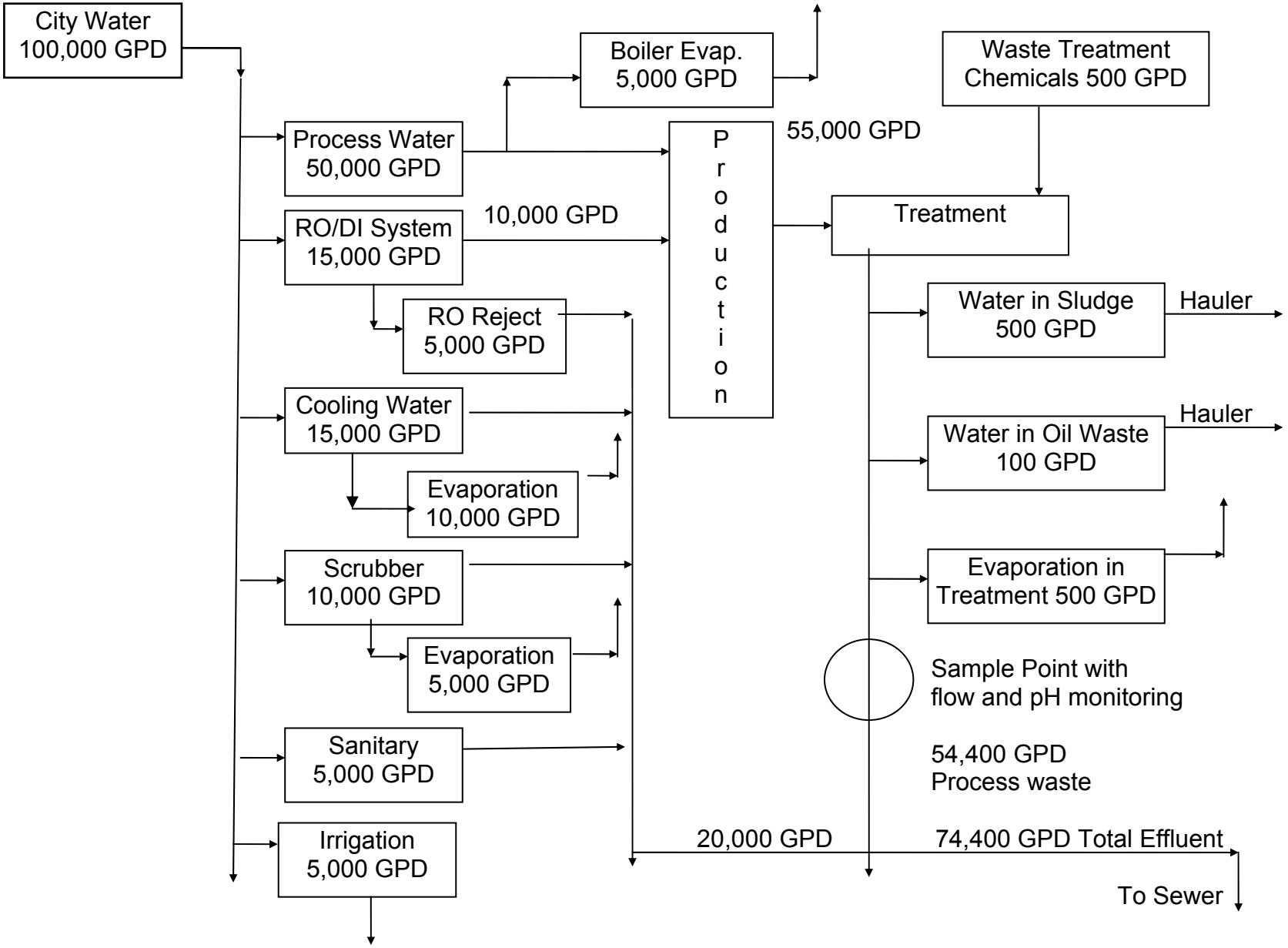
IV. Wastewater Discharge Point Sources

A. Process Diagram and Flow Chart:

For each major process in which wastewater is generated, diagram the flow of materials and water from start to completed product, showing all unit processes generating wastewater and estimated volumes (gals/day) from each process. Identify each unit process having discharges to sewer. Use the resultant numbers when completing the Facility Layout in Section V-A. **Attach as many sheets as necessary.**

SEE EXAMPLE ON NEXT PAGE.

EXAMPLE OF PROCESS FLOW DIAGRAM



B. Describe the Location of All Wastewater Flow Meters - Include Model Number, Manufacturer, Serial Number and Last Calibration Date:

_____

_____

C. Describe the Location of All Wastewater Control Manholes or Available Sampling Points:

_____

_____

D. List Average Volume of Discharge or Water Loss Per Day

WATER USED FOR:	%	GPD	MEASUREMENTS DETERMINED BY
Process Industrial Waste			
Sanitary Domestic Waste			
Waste Hauler			
Evaporation			
Contained in Product			
Cooling Water			
Scrubber Water From Air Pollution Control			
Boiler Feed			
Other:			

V. Pretreatment Facilities

A. Facility Layout and Flow Diagrams: Attach a Drawing (suggested no larger than 36' X 50') of the Facility Showing the Following Items:

- General facility layout
- Major activities in each area (offices, storage, production, etc.)
- Water meter(s) and incoming water lines
- General plumbing through process areas including location of floor drains and sumps
- General plumbing to and through treatment area - identify type of treatment(s)
- Location of sampling point(s) and effluent flow meters described in Section IV-C
- Location of large storage tanks and list tank storage capacity

B. Wastewater Treatment Systems (Check appropriate boxes):

TYPE OF SYSTEM	EXISTING	PROPOSED
pH Neutralization		
Screen		
Grit Removal		
Grease/Oil Removal		
Solvent Separation		
Silver Recovery Unit		
Deionization/Ion Exchange		
Chemical Precipitation		
Coagulation/Flocculation		
Sedimentation (Clarifier)		
Filtration/Filter Press		
Evaporation		
Biological Treatment		
Activated Carbon Adsorption		
Cyanide Destruction		
Flow Equalization		
Solvent Still		
Reverse Osmosis		
Closed Loop System(s)		
Other:		

C. Is There a Spill Prevention Control and Counter-measure Plan (SPCC) in Effect and on File With the City of Tempe Environmental Services Division for This Plant?

Yes _____ No _____

Date of Last Update to the City _____

D. Have You Upgraded the Pretreatment Facility During This Period?

Yes _____ No _____

If You Have Marked Yes, List What Was Added and Give Approximate Cost Figure. (Add extra sheets, if necessary.)

_____

_____

_____

_____

_____

E. Does This Facility Have Underground Storage Tanks or Aboveground Storage Tanks?

Yes _____ No _____

If So, Complete the Following Information. (Write empty if tank is empty.)

TANK #	SIZE	MATERIAL STORED

VI. Priority Pollutants Chemicals						
			Final Disposition (Estimated)			
	#1 Lbs./Gal. on Site	#2 Amount Used/Day	#3 Percent in Product	#4 Percent to Sewer	#5 Percent to Evap.	#6 Percent to Waste Hauler
2,4, 6-trichlorophenol						
2,4-dichlorophenol						
2,4-dinitrophenol						
2-chlorophenol						
2-nitrophenol						
4,6-dinitro-o-cresol						
4-nitrophenol						
Parachlorometa cresol						
Pentachlorophenol						
Phenol						
1,12-benzoperylene (benzo(ghi)perylene)						
1,2,4-trichlorobenzene						
1,2,5,6-dibenzanthracene (dibenzo(,h) anthracene)						
1,2-benzanthracene (benzo(a)anthracene						
1,2-dichlorobenzene						
1,2-diphenylhydrazine						
1,3-dichlorobenzene						
1,4-dichlorobenzene						
11,12-benzofluoranthene (benzo(b)fluoranthene)						
2,4-dinitrotoluene						
2,6-dinitrotoluene						
2-chloronaphthalene						
3,3-dichlorobenzidine						
3,4-Benzofluoranthene (benzo(b)fluoranthene)						
4-bromophenyl phenyl ether						
4-chlorophenyl phenyl ether						
Acenaphthene						
Acenaphthylene						
Anthracene						
Benzidine						
Benzo(a)pyrene (3,4-benzo-pyrene)						
Bis(2-chloroethoxy)methane						

VI. Priority Pollutants Chemicals						
			Final Disposition (Estimated)			
	#1 Lbs./Gal. on Site	#2 Amount Used/Day	#3 Percent in Product	#4 Percent to Sewer	#5 Percent to Evap.	#6 Percent to Waste Hauler
Bis(2-chloroethyl)ether						
Bis(2-chloroisopropyl)ether						
Bis(2-ethylhexyl)phthalate						
Butyl benzyl phthalate						
Chrysene						
Di-N-Butyl Phthalate						
Di-n-octyl phthalate						
Diethyl Phthalate						
Dimethyl phthalate						
Fluoranthene						
Fluorene						
Hexachlorobenzene						
Hexachlorobutadiene						
Hexachloroethane						
Hexachloromyclopentadiene						
Indeno (,1,2,3-cd) pyrene (2,3-o-pheynylene						
Isophorone						
N-nitrosodi-n-propylamin						
N-nitrosodimethylamine						
N-nitrosodiphenylamine						
Naphthalene						
Nitrobenzene						
Phenanthrene						
Pyrene						
Antimony						
Arsenic						
Asbestos						
Beryllium						
Cadmium						
Chromium						
Copper						
Cyanide, Total						

VI. Priority Pollutants Chemicals						
			Final Disposition (Estimated)			
	#1 Lbs./Gal. on Site	#2 Amount Used/Day	#3 Percent in Product	#4 Percent to Sewer	#5 Percent to Evap.	#6 Percent to Waste Hauler
Lead						
Mercury						
Nickel						
Selenium						
Silver						
Thallium						
Zinc						
2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)						
4,4-DDD (p,p-TDE)						
4,4-DDE (p,p-DDX)						
4,4-DDT						
Aldrin						
Alpha-BHC						
Alpha-endosulfan						
Beta-BHC						
Beta-endosulfan						
Chlordane (technical mixture and)						
Delta-BHC (PCB-polychlorinated biphenyls)						
Dieldrin						
Endosulfan sulfate						
Endrin						
Endrin aldehyde						
Gamma-BHC (lindane)						
Heptachlor						
Heptachlor epoxide (BHC-hexachlorocyclohexane)						
PCB-1016 (Arochlor 1016)						
PCB-1221 (Arochlor 1221)						
PCB-1232 (Arochlor 1232)						
PCB-1242 (Arochlor 1242)						
PCB-1248 (Arochlor 1248)						
PCB-1254 (Arochlor 1254)						
PCB-1260 (Arochlor 1260)						

VI. Priority Pollutants Chemicals						
			Final Disposition (Estimated)			
	#1 Lbs./Gal. on Site	#2 Amount Used/Day	#3 Percent in Product	#4 Percent to Sewer	#5 Percent to Evap.	#6 Percent to Waste Hauler
Toxaphene						
1,1,1-trichloroethane						
1,1,2,2-tetrachloroethane						
1,1,2-trichloroethane						
1,1-dichloroethane						
1,1-dichloroethylene						
1,2-dichloroethane						
1,2-dichloropropane						
1,2-dichloropropylene (1,3-dichloropropene)						
1,2-trans-dichloroethylene						
2-chloroethyl vinyl ether (mixed)						
Acrolein						
Acrylonitrile						
Benzene						
Bromoform (tribromomethane)						
Carbon tetrachloride (tetrachloromethane)						
Chlorobenzene						
Chlorodibromomethane						
Chloroethane						
Chloroform (trichloromethane)						
Dichlorobromomethane						
Ethylbenzene						
Methyl bromide (bromomethane)						
Methyl chloride (dichloromethane)						
Methylene chloride (dichloromethane)						
Tetrachloroethylene						
Toluene						
Trichloroethylene						
Vinyl chloride (chloroethylene)						

VI. (Continued)

B. List Other Chemicals, Including Gases, Used in the Manufacturing Process or Other Processes That May Be or Have Potential to Be Discharged to the Sewer That Do Not Appear in VI-A Above. Please Used Extra Paper, if Necessary.

Chemicals						
			Final Disposition (Estimated)			
	#1 Lbs./Gal. on Site	#2 Amount Used/Day	#3 Percent in Product	#4 Percent to Sewer	#5 Percent to Evaporation	#6 Percent to Waste Hauler

C. List Any Permits Which Have Been Issued to You by Other Agencies; i.e., Air Quality, ADEQ, Fire Department, or Other Agencies.

PERMIT TYPE/AGENCY NAME	PERMIT NUMBER	EXPIRATION DATE

D. Does This Facility Have a Waste Minimization/Pollution Prevention Plan in Place?

_____ Yes _____ No _____ N/A

_____ In Progress _____ Need more information

I. Does This Facility Have a Water Conservation Plan in Place?

_____ Yes _____ No _____ N/A

_____ In Progress _____ Need more information

VII. Certification by Company Official

A. This report must be signed by:

1. A responsible corporate officer, if the user is a corporation. A corporate officer shall be a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. A general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship.

3. A duly authorized representative of the individual if:

a. the authorization is made in writing by the individual described in #1 or #2 above;

b. the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the discharge originates, such as the position of plant manager or equivalent position having overall responsibility for environmental matters for the company, and that

c. the written authorization is submitted to the City of Tempe Environmental Services Division.

B. If an authorization under paragraph 1, 2, or 3 is no longer accurate, a new authorization satisfying the above must be submitted to the City prior to or together with any signed reports.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Name: _____

Signature: _____

Title: _____

Phone: _____

Date: _____

CITY OF TEMPE ENVIRONMENTAL SERVICES

Total Toxic Organic Verification Form

Name of Facility: _____

Address of Facility: _____

_____

Contact Person: _____

Contact Title: _____ Contact Phone: _____

Please check the appropriate line below:

___ No toxic organic compounds as listed in Appendix A are used or stored at this facility.

___ I elect to have this facility monitored for Total Toxic Organics (TTO's). I understand the potential exists that this facility could be required to assume all or part of the cost of sampling and laboratory fees for the implementation of this program. TTO monitoring shall be done on an annual basis.

___ This facility elects to submit a Solvent Management Plan in lieu of the required TTO monitoring. I understand that this Plan must be recertified every six months in our Periodic Compliance Report.

_____ Date

_____ Signature of Responsible Company Official

_____ Printed Name of Above Official

_____ Title of Above Official

Please submit this report to:

City of Tempe
Environmental Division
P.O. Box 5002
Tempe, AZ 85280

CITY OF TEMPE ENVIRONMENTAL SERVICES SECTION

Total Toxic Organic Inventory Form

Please submit one form page for each product you use or store at your facility containing a toxic organic compound from Appendix A.

1. Name of Product: _____

2. Appendix A Constituent(s): _____

3. Indicate Your Usage for Product:

__degreasing __coolant __metal etch
__paint stripping __catalyst __metal prep
__biocide __flux __fuel
__other (describe) _____

4. Indicate Procedure(s) for Spent Solvents:

__solvent recycled on-site
__still __used as fuel
__chemical extraction __other (describe) _____
__physical extraction _____

__Solvent Shipped Off-site
__recycler (name of company) _____

__waste disposal (name of company) _____

__Solvent Lost or Destroyed

__evaporation __incinerated __destroyed in usage
__oxidized to non-toxic (describe method) _____
_____
__other (describe) _____

5. Describe Procedures for Assuring Toxic Organics Do Not Enter Sewer Systems:
_____
_____

Evidence for Parts 4 and 5 will be asked to be presented during the City's inspection of your facility.

CITY OF TEMPE ENVIRONMENTAL SERVICES SECTION

Total Toxic Organic Certification

Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing of the last Periodic Compliance Report (Semiannual Report). I further certify that this facility is implementing the Solvent Management Plan as described in our Plan.

_____ Date

_____ Signature of Responsible Official

_____ Printed Name of Above Official

_____ Title of Above Official

_____ Name of Facility

Please attach this to your report or submit separately to:

City of Tempe
Environmental Division
P.O. Box 5002
255 East Marigold Lane
Tempe, Arizona 85280

APPENDIX A

The following is the total toxic organics table. List any chemical used in the manufacturing process or stored at your facility. Column A is the chemical name as listed in 40 CFR 413.02(i) and 40 CFR 433.11(e). Column B and C are synonyms of the chemical in column A.

Organic Name	Synonym	Synonym
Acenaphthene	1,2-Dihydroacenaphthylene	
Acrolein	Acraldehyde	Aqualin
Acrylonitrile	Cyanoethylene	Vinylcyanide
Benzene	Benzol	Cyclohexatriene
Benzidine	4,4'-Diaminobiphenyl	p,p'-Bianiline
Carbon tetrachloride	Tetrachloromethane	Carbontetrachloride
Chlorobenzene	Monochlorobenzene	
1,2,4-Trichlorobenzene	unsym-Trichlorobenzene	
Hexachlorobenzene	Perchlorobenzene	
1,2,-Dichloroethane	Ethylene Dichloride	
1,1,1-Trichloroethane	Trichlorethylene(TCE)	Methylchloroform
Hexachloroethane	Perchloroethane	
1,1-Dichloroethane		
1,1,2-Trichloroethane	Vinyltrichloride	
1,1,2,2-Tetrachloroethane	Bonoform / Cellon	Acetylenetetrachloride
Chloroethane	Ethylchloride	
Bis (2-chloroethyl) ether		
2-Chloroethyl vinyl ether (mixed)	(2-chloroethoxy) ethene	
2-Chloronaphthalene	2-chloronapthalene	
2,4,6-Trichlorophenol	Dowicide 2S	
Parachlorometa cresol	3 methyl-4-Chlorophenol	p-Chloro-m-cresol
Chloroform	Trichloromethane	
2-Chlorophenol	2 Chlorophenol	
1,2-Dichlorobenzene	o-Dichlorobenzene	ortho-Dichlorobenzene
1,3-Dichlorobenzene	m-Dichlorobenzene	meta-Dichlorobenzene
1,4-Dichlorobenzene	p-Dichlorobenzene	para-Dichlorobenzene
3,3-Dichlorobenzidine	DCB	Dichlorobenzidine
1,1-Dichloroethylene	1,1-Dichloroethene	Vinylidenechloride
1,2-Trans-dichloroethylene	Acetylenedichloride, trans-	trans-1,2-Dichloroethylene
2,4-Dichlorophenol		
1,2-Dichloropropane	Propylenedichloride	
1,3-Dichloropropylene	1,3-Dichloropropene	
2,4-Dimethylphenol	2,4-Xylenol	
2,4-Dinitrotoluene	1-Methyl-2,4-dinitrobenzene	
2,6-Dinitrotoluene		
1,2-Diphenylhydrazine	1,2-Diphenyl hydrazine	Hydrazobenzene
Ethylbenzene	Phenylethane	
Fluoranthene	Benzo(jk)fluorene	Idryl
4-Chlorophenyl phenyl ether	2-Chlorophenyl phenyl ether	4-Chlorophenylphenylether
4-Bromophenyl phenyl ether	4-Bromophenylphenylether	4-Bromodiphenylether
Bis (2-chloroisopropyl) ether	Diethylhexylphthalate	Di(2-ethylhexyl)phthalate
Bis (2-chloroethoxy) methane		
Methylene chloride	Dichloromethane	Methylenechloride

Methyl chloride	Chloromethane	Methylchloride
Methyl bromide	Bromomethane	Methylbromide
Bromoform	Tribromomethane	
Dichlorobromomethane	Bromodichloromethane	
Chlorodibromomethane	Dibromochloromethane	
Hexachlorobutadiene	Hexachloro-1,3-butadiene	
Hexachlorocyclopentadiene	Perchlorocyclopentadiene	
Isophorone	Isooctaphenone	Isophorene
Naphthalene	Naphthene	Tar camphor
Nitrobenzene		
2-Nitrophenol	o-Nitrophenol	
4-Nitrophenol	4-Hydroxynitrobenzene	p-Nitrophenol
2,4-Dinitrophenol	alpha-Dinitrophenol	
4,6-Dinitro-o-cresol	2-Methyl-4,6-dinitrophenol	DNOC
N-nitrosodimethylamine	N-Methyl-N-nitrosomethanamine	Dimethylnitrosamine
N-nitrosodiphenylamine	N-Nitroso-N-phenylbenzenamine	
N-nitrosodi-n-propylamine	Di-N-propylnitrosamine	N-Nitrosodipropylamine
Pentachlorophenol	PCP	
Phenol	Carbolic acid	
Bis (2-ethylhexyl) phthalate	Diethylhexylphthalate	Di(2-ethylhexyl)phthalate
Butyl benzyl phthalate	Phthalic acid, butylbenzylester	Butylbenzylphthalate
Di-n-butyl phthalate	Phthalic acid	Butylbenzyl phthalate
Di-n-octyl phthalate	Dioctyl phthalate	Dioctylphthalate
Diethyl phthalate	Diethylphthalate	
Dimethyl phthalate	Dimethylphthalate	
Benzo(a)anthracene	1,2-Benzanthracene	
Benzo(a)pyrene	3,4-Benzopyrene	
3,4-Benzofluoranthene	Benzo(e)fluoranthene	Benzo(b)fluoranthene
Benzo(k)fluoranthene	11,12-Benzofluoranthene	
Chrysene	1,2-Benzophenanthrene	
Acenaphthylene		
Anthracene		
Benzo(ghi)perylene	1,12-Benzoperylene	
Fluorene	2,2'-Methylenebiphenyl	
Phenanthrene		
Dibenzo(a,h)anthracene	1,2,5,6-Dibenzanthracene	Dibenzo (ah) anthracene
Indeno(1,2,3-cd) pyrene	2,3-o-phenlene pyrene	2,3-Phenylenepyrene
Pyrene	Benzo(def)phenanthrene	
Tetrachloroethylene	Perchloroethylene	Ethylenetetrachloride
Toluene	Methylbenzene	
Trichloroethylene	1,1,2-Trichloroethene	TCE
Vinyl chloride	Chloroethylene	Chloroethene
Aldrin		
Dieldrin		
Chlordane (technical mixtures)		
4,4-DDT	Dichlorodiphenyltrichloroethane	p,p'-DDT
4,4-DDE	p,p-DDX	Dichlorodiphenyldichloroethylene
4,4-DDD	p,p-TDE	Rhothane
A-endosulfan-Alpha	Endosulfan I	a-Endosulfan
B-endosulfan-Beta	Endosulfan II	b-Endosulfan
Endosulfan sulfate	Endosulfansulfate	
Endrin		
Endrin aldehyde	Endrinaldehyde	

Heptachlor	Heptachlorodicyclopentadiene	
Heptachlor epoxide	Heptachlorepoxide	Vesicol 53-CS-17
Alpha-BHC	alpha-Benzenehexachloride	a-BHC
Beta-BHC	beta-Benzenehexachloride	b-BHC
Gamma-BHC	gamma-Benzenehexachloride	g-BHC
Delta-BHC	delta-Benzenehexachloride	d-BHC
PCB-1242	Arochlor 1242	
PCB-1254	Arochlor 1254	
PCB-1221	Arochlor 1221	
PCB-1232	Arochlor 1232	
PCB-1248	Arochlor 1248	
PCB-1260	Arochlor 1260	
PCB-1016	Arochlor 1016	
Toxaphene	Polychlorocamphene	Chlorinated camphene
2,3,7,8-Tetrachlorodibenzo-p-dioxin	TCDD	Dioxin

Appendix B

GUIDANCE FOR THE PREPARATION OF A SOLVENT MANAGEMENT PLAN

As previously discussed, one alternative to routine TTO monitoring is the preparation of a Solvent Management Plan (SMP).

A SMP must specify the toxic organic compounds used, the method of disposal used (instead of discharge into wastestreams), and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW. Guidelines for preparation of a SMP are presented below as four basic steps.

Step 1 - Process Engineering Analysis

A process engineering analysis should be conducted to determine the source and type of toxic organic compounds found in a facility's wastewater discharge, including sources and compounds that could reasonably be expected to enter the wastewater in the event of spills, leaks, etc., based on the type of operations conducted at a particular plant. Such an analysis should be based on the results of one or more analyses of the plant's wastewater for the toxic organic pollutants which are included in the definition of TTO for that industrial category and which can reasonably be expected to be present (see TTO monitoring guidance). The process engineering analysis should include:

a. An examination of published reports on the specific industry;

b. A water flow diagram to identify all possible wastewater sources;

c. A list of raw materials used in the industrial processes, including chemical additives, water treatment chemicals and cleaning agents, and the wastewater stream that each regulated toxic organic could potentially enter;

d. Comparison of the toxics found in the effluent with the list of raw materials and selection of the most probable wastewater source;

e. Evaluation of the toxics found in the effluent, but not on the raw materials list and determination of those formed as reaction products or by-products;

f. Examination of sources such as equipment corrosion or raw materials' impurities that could result in release to wastewaters of toxic organic pollutants.

Step 2 - Pollutant Control Evaluation

An evaluation should be made of the control options that could be implemented to eliminate the toxic compound(s) or the source or potential source of toxic organic compound introduction to the treatment system. This may include in-plant modifications, solvent or chemical substitution, partial or complete recycle, reuse, neutralization, and operational changes. The analysis should be conducted on a case-by-case basis and will often result in one or more feasible options to control each source or potential source of toxic pollutant discharge. Finally, evaluation of the available control options, including the advantages and disadvantages of

each, may lead to a decision of whether a SMP is a feasible alternative to TTO monitoring.

Step 3 - Preparation of Solvent Management Plan

A Solvent Management Plan should include the following items at a minimum:

a. A complete inventory of all toxic organic chemicals in use or identified through sampling and analysis of the wastewater from regulated process operations (organic constituents of trade-name products should be obtained from the appropriate suppliers as necessary);

b. Descriptions of the methods of disposal other than dumping used for the inventoried compounds, such as reclamation, contract hauling, or incineration;

c. The procedures for ensuring that the regulated toxic organic pollutants do not spill or routinely leak into process wastewaters, floor drains, non-contact cooling water, groundwater, surface waters (i.e., Spill Prevention, Control, and Countermeasures [SPCC] Plan) or any other location which allows discharge of the compounds; and

d. Determinations or best estimates of the identities and approximate quantities of toxic organic pollutants used as well as discharged from the regulated manufacturing processes. Compounds present in wastestreams that are discharged to sanitary sewers may be a result of regulated processes or disposal, spills, leaks, rinse water carryover, air pollution control, and other sources.